



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/801,178	03/15/2004	Mitsuru Saitou	HGM-135-A	3220
21828	7590	05/20/2005	EXAMINER	
CARRIER BLACKMAN AND ASSOCIATES 24101 NOVI ROAD SUITE 100 NOVI, MI 48375			LAZO, THOMAS E	
			ART UNIT	PAPER NUMBER
			3745	

DATE MAILED: 05/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/801,178

Applicant(s)

SAITOU ET AL.

Examiner

Thomas E. Lazo

Art Unit

3745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6 and 8 is/are rejected.
- 7) ☒ Claim(s) 3 and 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                                              |                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/15/04</u> . | 6) <input type="checkbox"/> Other: ____.                                                |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagatomo (5,054,289). Nagatomo discloses in figure 4 a hydraulic continuously variable transmission with a transmission casing 31, an axial plunger pump, a pump cylinder 3; a plurality of pump plunger holes 6, a plurality of pump plungers 7, an axial plunger motor, a motor cylinder 4, a plurality of motor plunger holes 13, a plurality of motor plungers 14, and a closed hydraulic circuit, wherein circular pump and motor discharge openings 21,30 are provided at end portions of the pump and motor plunger holes 6,13 opposite end faces of the pump and motor plungers 7,14, and the pump and motor discharge openings 21,30 are smaller than the pump and motor plunger holes 6,13 and are offset from the center axes of the pump and motor plunger holes 6,13 toward the rotational axis of the pump and motor cylinders 3,4.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

Art Unit: 3745

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 6, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuda et al. (6,324,843) in view of Nagatomo. Yasuda et al. discloses a hydraulic continuously variable transmission with a hollow transmission housing 39, a motor casing, a motor pivot member 37, a swash plate plunger pump P, a pump swash plate 27, a pump cylinder, a plurality of pump plunger holes 25, a plurality of plungers, a swash plate plunger motor M, a motor swash plate 34, a motor cylinder, a plurality of motor plunger holes 32, a plurality of motor plungers, an output shaft 18, a plurality of rotatable bearings 49,50, wherein circular pump and motor discharge openings are provided at end portions of the pump and motor plunger holes 25,32 opposite end faces of the pump and motor plungers, and the pump and motor discharge openings are smaller than the pump and motor plunger holes 25,32. Yasuda et al. does not disclose that the pump and motor discharge openings are offset from the center axes of the pump and motor plunger holes toward the rotational axis of the pump and motor cylinders.

Nagatomo teaches for a hydraulic continuously variable transmission as stated above and that the pump and motor discharge openings are offset from the center axes of the pump and motor plunger holes toward the rotational axis of the pump and motor cylinders for the purposes of reducing the radial size and the weight of the transmission. See Nagatomo col. 12, line 2 – col. 13, line 68.

Since Yasuda et al. and Nagatomo are both a hydraulic continuously variable transmissions, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the transmission of Yasuda et al., based on the teachings of Nagatomo, to have the pump and motor discharge openings are offset from the center axes of the

Art Unit: 3745

pump and motor plunger holes toward the rotational axis of the pump and motor cylinders for the purposes of reducing the radial size and the weight of the transmission.

***Allowable Subject Matter***

Claims 3 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Prior Art***

Prior art made of record but not relied upon is considered pertinent to Applicant's disclosure and consists of three patents.

Reimer (3,698,189), Forster (3,680,312), and Jonkers et al. (3,132,486) are cited to show the hydraulic continuously variable transmissions.

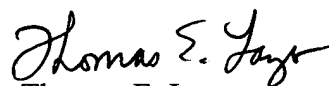
***Contact Information***

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Thomas Lazo whose telephone number is (571) 272-4818. The examiner can normally be reached on Monday-Friday from 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Edward Look, can be reached on (571) 272-4820. The fax phone number for this Group is (703) 872-9306.

Art Unit: 3745

Any inquiry of a general nature or relating to status of this application or proceeding should be directed to the Patent Application Information Retrieval (PAIR) system. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.



Thomas E. Lazo  
Primary Examiner  
Art Unit 3745

TEL  
May 12, 2005